

RHINOTM 6000



User Guide

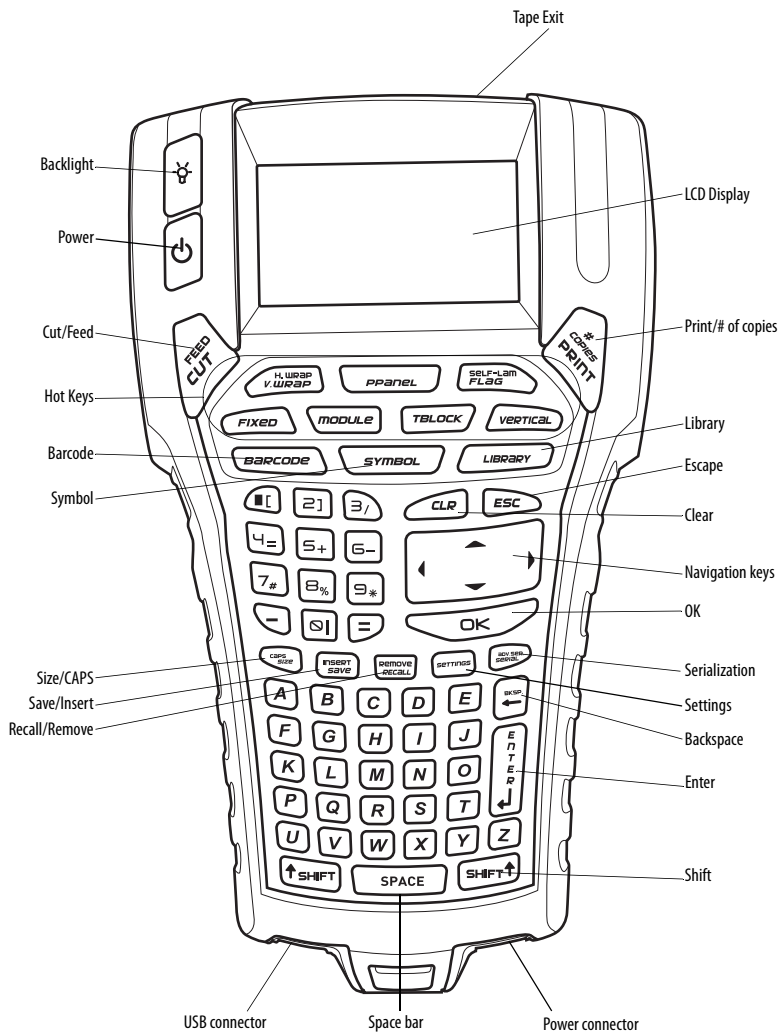


Figure 1 RHINO 6000 Printer

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About Your New Printer

With your new RHINO label printer, you can create a wide variety of high-quality, self-adhesive labels. You can choose to print your labels in many different sizes, and styles. The printer uses RHINO Industrial label tape cassettes in widths of 1/4" (6 mm), 3/8" (9 mm), 1/2" (12 mm), 3/4" (19 mm), or 1" (24 mm). RHINO tape cassettes are also available in a wide range of materials, such as flexible nylon, permanent polyester, vinyl, non-adhesive tag, and heat shrink tubes.

Visit www.rhinolabeling.com for information on the full line of labels and accessories for your printer.

Warranty Registration

Please complete the warranty registration card and return it to the appropriate customer service address within seven days. Visit www.rhinolabeling.com for details.

Getting Started

Follow the instructions in this section to start using your printer for the first time.

Connecting the Power

The printer can operate on battery or AC power. A power adapter and a rechargeable battery pack is included with your printer.

 The printer can operate with six AA alkaline batteries for power; however, alkaline batteries should only be used as temporary backup power.

To save power, the printer will automatically turn off after five minutes of inactivity.

Connecting the Power Adapter

The printer uses a 110V-240V power adapter. Connecting the power adapter with the battery pack inserted recharges the battery pack.

To connect the power adapter

1. Plug the power adapter into the power connector on the bottom of the printer. See Figure 2.

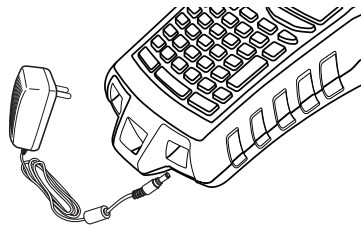


Figure 2

2. Plug the other end of the power adapter into a power outlet.

Inserting the Battery Pack

The printer uses the rechargeable, Lithium-ion battery pack when not connected to the power adapter. As temporary backup power, the printer can operate using six AA alkaline batteries.

To insert the battery pack

1. Press the thumb latch on the back of the printer to remove battery compartment lid. See Figure 3.

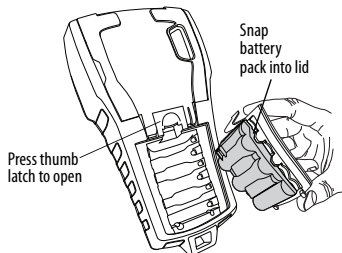


Figure 3

2. Snap the battery pack into the battery compartment lid. See Figure 3.
3. Replace the battery compartment lid.

⚠ Remove the batteries if the printer will not be used for a long period of time.

Recharging the Battery Pack

The battery pack automatically recharges while the printer is connected to a power source through the power adapter. Charging the battery pack for the first time will take approximately eight hours; recharging the battery pack will take approximately two hours.

Inserting and Removing the Tape Cassette

Your printer comes with a starter tape cassette. Visit www.rhinolabeling.com for information about purchasing additional tape cassettes.

To insert the tape cassette

1. Gently lift the tape cassette door on the back of the printer.
2. Make sure the tape and ribbon are taut across the mouth of the cassette and that the tape passes between the guides. If necessary, turn the ribbon rewind spool clockwise to tighten the ribbon.
3. Insert the cassette with the tape and ribbon positioned between the guideposts.

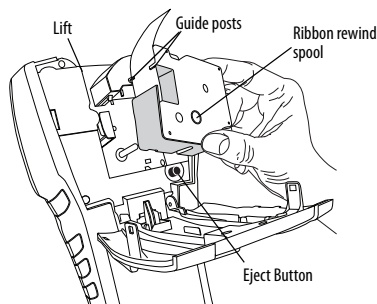


Figure 4

4. Press gently on the cassette until the cassette moves into place. The insertion mechanism will guide the cassette into place.
5. Close the tape cassette door.

To remove the tape cassette

1. Lift the tape cassette door on the back of the printer.
2. Press the cassette eject button. The tape cassette is lifted from the printer.
3. Gently remove the tape cassette.
4. Insert a new tape cassette as described above.
5. Reset the tape width as described in **Setting the Tape Width**.

Setting the Tape Width

Each time you insert a tape cassette into the printer, you are prompted to set the tape width so the printer knows what size label tape you are currently using. Some of the features you use to design labels are dependent on the width of the tape. However, to create a label for a tape width different than what is currently in the printer, you can set the tape width from the Settings menu.

To set the tape width

1. Press **SETTINGS**. The Settings menu appears on the display.
2. Select **Tape Width**.
3. Select the width of the label tape currently inserted in the printer.
4. Press **OK** and then select **Done (ESC)**.

Selecting a Language

Several language-related features on the printer are determined by the language setting, such as special characters, menu text, and so on. By default the language is set to English.

To select a language

1. Press **SETTINGS** and select **Language**.
2. Select the language.
3. Press **OK** and then select **Done (ESC)**.

Selecting Units of Measure

You can choose to work in inches or millimeters.

To select the units of measure

1. Press **SETTINGS** and select **Units**.
2. Select **Inch** or **mm**.
3. Press **OK** and then select **Done (ESC)**.

Getting to Know Your Printer

Become familiar with the location of the feature and function keys on your printer. See Figure 1 on the inside front cover. The following sections describe each feature in detail.

Power

The  button turns the power on and off. If no keys are pressed after five minutes, the power is turned off automatically.

When the printer is turned off, the current label file and its settings are remembered for the next time the printer is turned on. If the battery pack and power adapter are disconnected at the same time, some of the settings are remembered; however, the current label file is lost and you will need to reset the tape width when you reconnect the power and turn on the printer.

LCD Display

The printer's LCD display includes a caption bar across the top, showing the current label type, and feature indicators on the right side, showing which features are currently selected. See Figure 5.

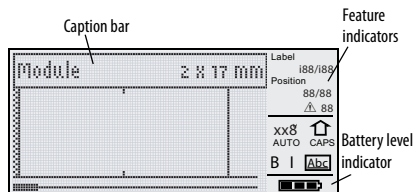


Figure 5

When the text you have entered will not fit on the label as currently defined, the portion of the text that will not fit is shaded. If you attempt to print the label containing text that will not fit, the excess text will not be printed.

Using the Backlight

In low light conditions, you can turn on the backlight to make it easier to see the display. To save power, the backlight will turn off automatically after 15 seconds of inactivity. Pressing any key will turn the backlight back on again. The backlight key acts as a toggle to turn the light on and off.

To toggle backlighting on and off

- ◆ Press .

Adjusting the Display Contrast

In addition to backlighting, you can adjust the display contrast to help in different lighting conditions.

To adjust the display contrast

1. Press **SETTINGS**.
2. Select **LCD contrast** and press **OK**.
3. Use the arrow keys to select a value between **0** (lighter) and **8** (darker). The contrast changes as you select the different settings.
4. Press **OK**, and then select **Done (ESC)**.

Hiding the Caption Bar

The Caption bar at the top of the display shows the current label type and for some label types, additional information about the label, such as size or barcode type. The Caption bar can be hidden to allow more lines of the label to be shown in the display. This is very useful for multi-line labels.

To hide the Caption bar

1. Press **SETTINGS**.
2. Select **Caption bar** and press **OK**.
3. Select **Hide**, press **OK**, and then select **Done (ESC)**.

CAPS Mode

The **CAPS** key toggles capitalization on and off. When CAPS mode is turned on, the CAPS indicator is shown on the display and all letters that you enter will be capitalized. The factory default setting is CAPS mode on. When CAPS mode is off, all letters entered appear in lower case.

To toggle CAPS on and off

- ◆ Press **CAPS (SHIFT + SIZE)**.

Shift Key

The **SHIFT** keys are used to select the function or symbol printed above a key. For example, when you press the **9** key, the number 9 appears in the display; however, if you press **SHIFT** and then **9**, an asterisk (*) appears in the display. Pressing one of the Shift keys toggles the function on and off, so you do not need to hold down both keys together.

Escape Key

The **ESC** key returns you to the previous menu from within any menu without making a selection.

Navigation Keys

The navigation keys operate as follows:

Key	Function
◀	Moves one character to the left in the display Returns to the previous menu (can also use ESC)
SHIFT ◀	Moves one label to the left in the display
▶	Moves one character to the right in the display Moves to the next menu level (can also use OK)
SHIFT ▶	Moves one label to the right in the display
▲	Moves up in a list of items
▼	Moves down in a list of items
OK	Selects a menu item

Backspace Key

The ◀ key removes the character to the left of the cursor.

Clear Key

The **CLR** key clears all current text settings and format, returning the display to the General label type.

Cutter Button

The Cutter button cuts the label tape. When printing multiple labels, the printer pauses after printing each label so that you can cut the label. You can turn this feature off, so that multiple labels will print continuously. See **Pausing between Labels** on page 14.

Hot Keys

A number of hot keys are available for creating specific types of labels, adding barcodes, inserting symbols, and using the text from the library. These hot keys are described in detail later in this user guide.

Working with Label Files

The printer creates and stores labels as label files. A label file can contain one or more labels. When you create a new label, you also create a new label file. You can then insert additional labels, remove labels, and store the group of labels as a label file in memory.

Creating a Label File

The printer remembers the last label that you were working on when the power was turned off. You need to clear that label text and formatting before you create a new label.

To create a new label file

1. If necessary, press **CLR** to clear the previous label and formatting from the display.
2. Type some text using the keypad.
3. Format the text using Text Size or Text Style. See **Formatting a Label** on page 5.
4. Save the label to memory. See **Saving a Label File** on page 15.

Adding Labels to a Label File

You can add additional labels to an existing label file.

To add a label to a file

1. Press **INSERT (SHIFT + SAVE)**.
 2. Select **To the right** to add a label to the right of the cursor position or **To the left** to add a label to the left of the cursor position.
 3. Press **OK**. A new blank label is inserted in the display to the left or right of the current label.
- You can move from label to label using the arrow keys.

Removing Labels from a File

You can remove one or more labels from a label file.

To remove a label

1. Press **REMOVE (SHIFT + RECALL)**.

2. Select one of the following:
 - **All** to remove all of the labels in the file.
 - **Current** to remove the label at the current cursor position.
 - **Range** and then select the range of labels to remove.
3. Press **OK**. The selected labels are removed from the display.

Printing a Label File

When you print a label file, you choose whether to print all of the labels, the current label, or a range of labels in the file.

To print labels

1. Press **PRINT**. If your label file contains more than one label, a print menu is displayed.
2. Select one of the following:
 - **All** to print all of the labels in the file.
 - **Current** to print the label at the current cursor position.
 - **Range** and then select the range of labels to print.
3. Press **OK**. The labels selected are printed.
4. Press **CUT** and remove the labels.

Formatting a Label

You can choose from a number of formatting options to enhance the appearance of your labels.

Changing the Text Size

You can print the text on your label in eight sizes: extra-extra-small, extra-small, small, medium, large, extra-large, extra-extra-large and BIG (all capital letters). The text size selected applies to all the text on all the labels in a label file.

You can also select Auto as the text size. When Auto is selected, the best text size is automatically determined for the height and width of the label you are creating. BIG font is not used when Auto text size is selected.

 The text size available for you to use depends on the width set for the label tape and the type of label you are creating.

To set the font size

- ◆ Press **SIZE**. Each time you press **SIZE**, the next available font size is highlighted on the Size feature indicator on the display.
- You can also select the font size from the Settings menu.

Changing the Text Style

You can print the text on your label in several styles: bold, italic, underlined, and boxed. And, you can choose normal width or narrow width. The text style applies to all the text on all the labels in the label file, including most symbols. Text style is not applied to user defined symbols.

To set the text style

1. Press **SETTINGS**.
2. Select **Text style** and press **OK**.
3. Use the arrow keys to select a style.
4. Press **OK** and then select **Done (ESC)**.

Creating Multi-Line Labels

You can create multi-line labels depending upon the width of the label tape, as follows:

Tape Width	1/4" (6 mm)	3/8" (9 mm)	1/2" (12 mm)	3/4" (19 mm)	1" (24 mm)
# Lines	1	3	3	5	5

The display shows two lines of text with the Caption bar displayed; or three lines with the caption bar hidden. Use the arrow keys to scroll through multiple lines. See **Hiding the Caption Bar** on page 4.

To create a multi-line label

1. Type the text for the first line, and press **ENTER**.
2. Type the text for the next line.
3. Repeat these steps for each additional line.

Using International Characters

The printer supports the extended Latin character set using RACE technology. Similar to using a mobile phone keypad, holding down a letter key will scroll through variations of that letter.

For example, if you hold down the letter **a**, you will see **a à á â ã ä å** and so on through all the variations available. The order in which the character variations appear depends on the language you selected to use.

Creating Industrial Labels

You can quickly create labels for special industrial applications, such as cable wraps, flags, patch panels, terminal blocks, or modules. You can create fixed length labels or self-laminated labels.

Hot keys are available for each of the label types available. The current label type is displayed in the Caption bar. By default, the label type is General with no special formatting, text centered, and the length automatically determined by the amount of text.

The hot keys toggle the label type on and off. For example, if you choose Flag and later want a General label, just press the Flag key a second time to remove the Flag settings and return to General label type.

Creating Wire Wrap Labels

You can create several types of labels that *wrap around* a cable or wire: vertical wire wrap, horizontal wire wrap, self-laminating, and flag labels.

Creating Vertical Wrap Labels

A Vertical Wrap label is placed around the width of a wire or cable. You can enter up to five lines of text and the text is repeated as many times as possible depending on the size of the text and the length of the label.



You select from a number of different wire gauges or cable lengths. The printer then determines the size of the label. The following table shows the selections available.

CAT X	CABLE 3.0"
COAX	CABLE 4.0"
22-16 AWG	CABLE 5.0"
14-10 AWG (Default)	CABLE 6.0"
8-4 AWG	FIBER 0.1" - 1/4"
3-1 AWG	FIBER 1/4" - 1/2"
1/0-4/0 AWG	FIBER 1/2" - 1"

To create a vertical wrap label

1. Press **V.WRAP**.
2. Select the desired wire gauge or cable size, and press **OK**.
3. Select **Done (ESC)** to create the label.

To create multiple labels quickly, see **Creating a Series of Labels** on page 12.

Creating Horizontal Wrap Labels

A Horizontal Wrap label is placed horizontally along the length of the wire or cable. The label text is repeated as many times as possible depending on the size of the text and the width of the tape.



To create a horizontal wrap label

1. Press **H.WRAP (SHIFT + V.WRAP)**.
2. Enter the label length and press **OK**. Select **AUTO** to have the length automatically set to fit the text.
3. Select **Done (ESC)** to create the label.

To create multiple labels quickly, see **Creating a Series of Labels** on page 12.

Creating Self-Laminating Labels

The Self-Laminating label is designed to be used with RHINO Self-Laminating Labels (part number 1734821). The text of the label is printed on the top portion of the label so the clear, bottom half of the label can wrap around and cover the text.



Self-Laminating tape is 24 mm wide; however, you can only enter two lines of text and are limited to using extra-extra-small, extra-small, and small font sizes.

To print a self-laminating label

1. Press **SELF-LAM (SHIFT + FLAG)**.
2. Enter the label length or select **AUTO** to have the label length automatically set to fit the text.
3. Press **OK**.
4. Select **Done (ESC)** to create the label.

To create multiple labels quickly, see **Creating a Series of Labels** on page 12.

Creating Flag Labels

Flag labels wrap around a wire or cable leaving the text part of the label extending out from the cable. The text on flag labels is automatically printed on both ends of the label leaving a blank space in the middle that wraps around the cable. When the label is applied to the cable, both ends of the label are applied back to back leaving a tail or *flag*. The result is a label that can be read from both sides.



To print a flag label

1. Press **FLAG**.
2. Enter the length for the flag portion of the label.
Select **AUTO** to have the length automatically set to fit the text. The total length of the label is calculated by doubling the flag length and adding 34 mm to wrap around the cable.
3. Select **Done (ESC)** to create the label.
4. Enter the text for the label and press **PRINT**.

To create multiple labels quickly, see **Creating a Series of Labels** on page 12.

Creating Fixed Length Labels

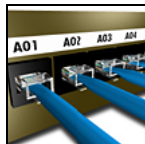
Normally, the length of the label is determined by the length of the text entered. However, you may wish to make a label for a specific purpose that is a fixed length regardless of the length of the text. The factory default fixed length is 1.0" (25 mm). Any change you make to the fixed length setting remains in effect until you change it.

To set the label length

1. Press **FIXED**.
2. Enter the length of the label and press **OK**.
Any text that does not fit within the fixed length appears shaded in the display and will be truncated when the label is printed.

Creating Patch Panel Labels

Patch panel mode allows you to label a row of ports on a patch panel. You select the distance between ports, enter the desired text, and print. The result is a long label with multiple, evenly spaced text for each port.



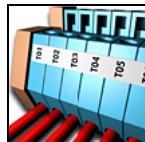
To create a patch panel label

1. Press **PPANEL**.
2. Select **Port distance**.
3. Enter the distance between each port and press **OK**.
The factory default is 0.6" (15 mm).
4. Select **# of ports**.
5. Enter the number of ports and press **OK**.
6. Select **Done (ESC)** to create the label.
Each port is separated by a solid black line on the display.
7. Enter the text for each port in the label. Use the left or right arrow key to move from port to port.
To create data for the ports automatically, see **Creating a Series of Labels** on page 12.

To print vertical lines between the ports, see **Printing Vertical Lines between Cells** on page 10.

Creating Terminal Block Labels

Terminal block labels are very similar to patch panel labels; however, the text is printed vertically for each block.



To create a terminal block label

1. Press **TBLOCK**.
2. Select **# of blocks** and press **OK**.
3. Enter the number of blocks and press **OK**.
4. Select **Block size** and press **OK**.

5. Enter the width of each block and press **OK**. The factory default is 0.5" (17.5 mm).
6. Select **Done (ESC)** to create the label.
7. Enter the text for each terminal.

Use **SHIFT** + **◀** or **▶** to move among terminals.

To create data for the terminal blocks automatically, see **Creating a Series of Labels** on page 12.

Creating Module Labels

The Module label type allows you to label a row of fuses. You set the width of a fuse and the number of fuses, enter the desired text for each fuse, and print. The result is a long label with multiple, evenly spaced text for each port. You can use fuse multipliers to adjust the width of individual modules as necessary.



To create a module label

1. Press **MODULE**.
2. Select **Fuse length** and press **OK**.
3. Enter the fuse length and press **OK**. Select the length that applies to the smallest size fuse in the module. You can then use fuse multipliers to increase the size of any individual modules that are larger. See step 6. The factory default fuse length is 0.5" or 17.5 mm.
4. Select **# of modules** and press **OK**.
5. Enter the number of modules for this label and press **OK**.
6. Adjust the size of individual modules using fuse multipliers. See **Using Fuse Multipliers**.
7. Select **Done (ESC)** to create the label.
8. Enter the text for each module. Use the left or right arrow key to move from module to module.

To create the data for the modules automatically, see **Creating a Series of Labels** on page 12.

Using Fuse Multipliers

Fuse multipliers allow you to adjust the size of individual fuse modules within a module type label.

To adjust the size of an individual module

1. Create a module label as described in **Creating Module Labels**.
2. Press **SETTINGS**.
3. Select **Current label config.** and press **OK**.
4. Select **Multipliers** and press **OK**.
5. Use the arrow keys to select the module number to adjust and press **▶**.
6. Select the multiplier for that module.
7. Press **OK** and then **Done (ESC)** to return to the label.

Printing Empty Modules

You can choose to print empty modules at the end of Module labels. By default, printing empty modules is turned off.

To print empty modules

1. Press **SETTINGS**.
 2. Select **Print empty modules** and press **OK**.
 3. Select **On** and press **OK**.
 4. Select **Done (ESC)** to return to the label.
- Any empty modules at the end of a module label will now be printed.

Creating Vertical Labels

You can choose to print labels with the text running vertically. Labels with multiple lines of text will print as multiple columns of text.



To print a vertical label

1. Enter the text for your label.
2. Press **VERTICAL**.

3. Enter a length for the label. Select **AUTO** to have the length of the label automatically set to fit the text.
4. Press **OK** to create the label.

Changing the Label Type

Once you create a label using one label type, you can easily change the label type without losing your data. When you change from a multi-cell label, such as a patch panel, to a single cell label, such as General or Flag, each cell becomes a new label. All blank cells are deleted.

If the data from one label type will not fit in the new label type, the text that will not fit is shaded in the display.

To change the label type

1. Press the hot key for the new label type.
2. Make any necessary adjustments to the settings for the label type.

Changing the Label Settings

Once you create a specific label, you can change the settings without starting all over again.

To change the label settings

1. Press **SETTINGS**.
2. Select **Current label config.** and press **OK**.
The settings for the particular label type are displayed.
3. Make the necessary changes.
4. Press **OK** and then select **Done (ESC)**.

Printing Vertical Lines between Cells

For multiple cell labels, such as Patch Panel, Terminal Block, and Module, you can choose to print a vertical line between each of the cells.

To print vertical lines between cells

1. Press **SETTINGS**.
2. Select **Vert. lines** and press **OK**.

3. Select **On**.
4. Press **OK** and then select **Done (ESC)**.

A vertical mark is printed between each cell.

Using Barcodes

The printer can generate the following types of barcodes.

Code 39	EAN 8
Code 128 Auto	EAN13
UPC A	UPC E

You can only print a barcode on 3/4" (19 mm) and 1" (24 mm) wide label tape. You can choose to print the human-readable text or not, and you can serialize barcodes.

The barcode prints horizontally along the label with the text in small print underneath the barcode. You can optionally add text before and after the barcode.

Adding a Barcode

The barcode text appears on the label in the display just like any other text. However, if the cursor is positioned within the barcode text, **Barcode** and the type of barcode are displayed in the Caption bar.

To add a barcode

1. Press **BARCODE**.
2. Use the arrow keys to select the barcode type, and press **OK**.
3. Enter the text for the barcode within the barcode and press **OK**.

Editing a Barcode

You edit an existing barcode or delete a barcode in the same manner.

To edit a barcode

1. Move the cursor anywhere within the barcode text.
2. Press **BARCODE** or type a character. A message appears asking if you would like to edit the barcode.

3. Press **OK**. The text of the existing barcode appears.
4. Edit the barcode text and press **OK**.

Deleting a Barcode

A barcode is entered on the label as one character.

To delete a barcode

1. Place the cursor at the end of the barcode on the display.
2. Press **←**.

Hiding Barcode Text

You can choose to hide the human-readable text for the barcode.

To hide barcode text

1. Press **SETTINGS**.
2. Select **Barcode HR** and press **OK**.
3. Select **Off**.
4. Press **OK** and then select **Done (ESC)**.

Adding Symbols

Your printer includes a set of default symbols to use on your labels. The symbols are separated into several categories:

Electrical	Brackets
Voice/Data	Arrows
Audio/Video	Numbers
Warning	Home Electrical
Punctuation	Currency

A complete list of the default symbols can be found beginning on page 17.

Some of the more popular symbols can be accessed from the number keys using **SHIFT** plus the number. For example, pressing **SHIFT + 1** inserts an open bracket (I).

If you transfer a custom set of symbols from the RHINO Connect™ Software to the printer, an additional set of User symbols becomes available. See **Using RHINO Connect Software** on page 16 for more information.

Inserting Symbols

Symbols added to a label can be formatted or deleted just like any other character you enter.

To insert a symbol

1. Press **SYMBOL**.
2. Select **Default**, if necessary.
3. Select a category of symbols.
4. Use the arrow keys to find the symbol you want.
5. Press **OK** to insert the symbol on the label.

Inserting User Symbols

Custom symbols downloaded from RHINO Connect Software are stored as User symbols. See **Using RHINO Connect Software** on page 16 for more information.

You insert User symbols in the same manner as pre-defined symbols; however, User symbols cannot be formatted.

To insert a User symbol

1. Press **SYMBOL**.
2. Select **User**.
3. Use the arrow keys to find the symbol you want.
4. Press **OK** to insert the symbol on the label.

Using the Text Library

Your printer includes a pre-defined text library. The library is separated into several categories:

Location	Voice/Data
Audio	Security
Video	

An additional category, called My Library, is available for you to add custom text to use on your labels.

 My Library text is not included when you select All from the Library menu.

A complete list of pre-defined text strings can be found beginning on page 18.

Inserting Library Text

Library text added to a label can be edited, formatted, or deleted just like text you enter from the keypad.

To add text to a label

1. Press **LIBRARY**.
2. Select one of the categories.
3. Press the first letter of the text string you wish to use. The cursor jumps to the first text string that begins with that letter.
4. Press **OK** to insert the text on the label.

Adding My Library Text

You can download custom text from RHINO Connect Software or you can add custom text to the library directly from the printer. See **Using RHINO Connect Software** on page 16 for more information.

To add custom text

1. Press **LIBRARY**.
2. Use the arrow keys to select **My Library**.
3. Select **Add new string** and press **OK**.
4. Enter the text and press **OK**.

The text is added to My Library.

Deleting My Library Text

You can delete custom text from My Library.

To delete My Library text

1. Press **LIBRARY**.
2. Use the arrow keys to select **My Library**.
3. Select the text to delete.
4. Press . A confirmation message appears.
5. Press **OK** to delete the text.

Adding Graphics

When labels are transferred to the printer from RHINO Connect Software, any images are stored separately in the printer as graphic files. You can apply these graphic files to most labels. When a graphic cannot be used with a certain label, a warning appears on the display. See *RHINO Connect Software Online Help* for more information about placing images on a label.

To add a graphic

1. Press **SETTINGS**.
2. Select **Choose graphic** and press **OK**.
3. Select the graphic file you want to use and press **OK**. The graphic does not appear in the display, but will print on the label.

Creating a Series of Labels

You can automatically generate labels by creating a series. You create a starting pattern, and then set the increment and count for the series.

You can serialize any number or letter by selecting the position to be incremented, such as the number 2 in 123 or the letter B in ABC. For example, when the 2 is selected in 123 and the increment $\# = 3$, the resulting labels would print as 123, 133, and 143.

Letters can be incremented from A to Z and a to z, and numbers from 1 to 9. When the letter Z or the number 9 is reached during serialization, a letter or number is added to increase the increment. For example, Az increments to Aaa, AZ increments to BA, and A9 increments to A10.

Three methods of serialization are available: simple, simultaneous, and advanced.

Using Simple Serialization

Simple serialization creates a series of labels by incrementing one alphanumeric character in the pattern. For example, 101, 102, 103, 104, and so on.

To use simple serialization

1. Enter the text for your label.
2. Press **SERIAL**. A box appears around the first character in the label.
3. Use the arrow keys to move the cursor to the position you wish to increment and press **OK**.
4. Select the amount you want to increment each label and press **OK**. You choose to increment in steps up to 10.
5. Select the number of labels you want to create and press **OK**. You can choose to create up to 99 labels.

A new label is added in the display for each label in the series.



To print multiple copies of the same serialized label, press # **COPIES (SHIFT + PRINT)** and enter the number of copies of each label to print. See **Printing Multiple Copies** on page 14.

Using Simultaneous Serialization

Simultaneous serialization creates a series of labels by incrementing two different alphanumeric characters at the same time. For example, A-101, B-102, C-103, and so on.

To use simultaneous serialization

1. Enter the text for your label.
2. Press **ADV.SER. (SHIFT + SERIAL)**.
3. Select **Simultaneous** and press **OK**. A box appears around the character where the cursor was positioned.
4. Select the first character position you want to increment and press **OK**.

5. Select the second character position you want to increment and press **OK**.
6. Select the amount you want to increment these characters on each label and press **OK**. You can choose to increment in steps up to 10.
7. Select the number of times to increment these characters and press **OK**.

A new label is added in the display for each label in the series.

Using Advanced Serialization

Advanced serialization creates a series of labels by allowing you to select two sequences in the pattern and increment them consecutively.

For example, A-101, A-102, A-103, B-101, B-102, B-103, C-101, C-102, C-103, and so on.

To use advanced serialization

1. Enter the text for your label.
2. Press **ADV.SER. (SHIFT + SERIAL)**.
3. Select **Advanced** and press **OK**. A box appears around the character where the cursor was positioned.
4. Select the first character position you want to increment and press **OK**.
5. Select the amount you want to increment this character position and press **OK**. You can choose to increment in steps up to 10.
6. Select the number of times to increment this character position and press **OK**.
7. Repeat Steps 4 through 6 for the second character position you want to increment.

A new label is added in the display for each label in the series.

Printing Options

You can choose to print multiple copies of the same label, collate the copies, pause to cut between labels, advance the label tape, and adjust the print contrast.

Printing Multiple Copies

You can print up to 99 copies of the same label at one time.

To print multiple copies

1. Press **# COPIES (SHIFT + PRINT)**.
2. Press the **▲** arrow to increase the number of copies to print. The default is 2 copies.
3. Press the **▼** arrow to decrease the number of copies (maximum is 99).
4. Press **OK** or **PRINT** to begin printing.

 You may notice a brief pause in printing between each label for more complex formats.

When printing is finished, the number of copies to print returns to 2.

Collating Multiple Copies

When printing multiple copies of a label file containing more than one label, all the copies of a label are printed before the next label starts printing. You can choose to have the label file print collated, so each complete copy of the file prints before the second copy starts. The following example shows three copies of a label file containing three labels printed normally and collated.

Normal

A101 A101 A101 A102 A102 A102 A103 A103 A103

Collated

A101 A102 A103 A101 A102 A103 A101 A102 A103

To collate multiple copies

1. Press **SETTINGS**.
2. Select **Collate multi. copies** and press **OK**.
3. Select **On**.
4. Press **OK** and then select **Done (ESC)**.

Pausing between Labels

By default the printer pauses after printing each label so you can cut the label. You can turn this feature off to have the labels print continuously.

To set the printer to print continuously

1. Press **SETTINGS**.
2. Select **Pause to cut btw labels** and press **OK**.
3. Select **Off**.
4. Press **OK** and then select **Done (ESC)**.

Advancing the Label Tape

The default leader space for all labels is approximately 5/16" (10 mm). To add additional blank space to the beginning or end of your label, you can feed the tape in 5/16" (10 mm) increments.

To advance the tape

1. Press **FEED (SHIFT + CUT)**.
2. Press **OK** to advance the tape.

Adjusting Print Contrast

Depending on the label material you choose, you may need to lighten or darken the print on the label.

To adjust the print contrast

1. Press **SETTINGS**.
2. Select **Print contrast** and press **OK**.
3. Use the arrow keys to adjust the print contrast.
4. Press **OK** and then select **Done (ESC)**.
5. Repeat as necessary until you are satisfied with the print quality.

Using Printer Memory

The printer has a powerful memory feature that can store label files for later recall. The number of label files that can be stored is dependent on the size of the label files and the number of images they contain. The more images a file contains, the less memory that is available for storing label files.

Saving a Label File

You can save label files for later use. When you save a label file, all the label text and formatting are saved. A label file name can be up to 20 alphanumeric characters in length.

To save a label file

1. Create the labels in your label file.
2. Press **SAVE**.
3. Use the arrow keys to select **New** and press **OK**.
4. Enter a name for your label file and press **OK**.
5. Press **CLR** to start a new label.

Recalling a Label File from Memory

Once a label is saved to memory, you can recall the label to print or edit. Recalling a label replaces the current label.

To recall a label from memory

1. Press **RECALL**. The memory locations are displayed.
2. Use the arrow keys to move to the memory location that contains the label you want and press **OK**.
A message appears confirming that you want to clear the current label text and formatting.
3. Press **OK**.

Deleting a Label File from Memory

When you no longer need a stored label, you can delete it from memory.

To delete a label from memory

1. Press **RECALL**. The saved label files are displayed.

2. Use the arrow keys to move to the label file you wish to delete.
3. Press **←** and then press **OK** to clear the memory location.

Cleaning Your Printer

Your printer is designed to give you long and trouble-free service, while requiring very little maintenance. Clean your printer from time to time to keep it working properly.

To clean the print head

1. Remove the tape cassette.
2. Remove the cleaning tool from inside the tape cassette door.
3. Gently wipe the padded side of the tool across the print head.

Using RHINO Connect Software

Your printer can be used as a standalone label printer or you can print labels directly from your computer using RHINO Connect Software. This software is optional, and is not included with all printers.

RHINO Connect Software offers the following features:

- Upload and download label files for in-the-field and on-demand printing
- Insert customized graphics, logos, symbols, and industry terms
- Import data from any Windows program
- Create labels using the integrated step-by-step wizard
- Print labels directly from RHINO Connect Software

Visit **www.rhinolabeling.com** for more information about obtaining the software. In addition, you can download a free Windows printer driver so you can print directly to your RHINO printer from any Windows application.

Refer to the *RHINO Connect Software Online Help* for complete information about using the printer while connected to your computer.

Connecting to your Computer

The printer connects to your computer using the USB connection located on the bottom of the printer.

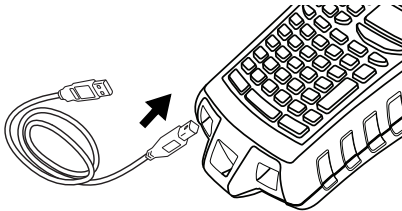


Figure 6

 While data is being transferred between the printer and your computer, **PC Connected... Do not disconnect** is displayed on the printer and you cannot use any of the printer functions.

Library Text

The following tables list the library text by category.

Location

ATTIC	KITCHEN
BACK	LAUNDRY ROOM
BASEMENT	LEFT
BATH	LIBRARY
BEDROOM	LIVING ROOM
BILLIARDS ROOM	LOBBY
CENTER	LOWER
CLOSET	MAIN FLOOR
DECK	MASTER BATH
DEMARC	MASTER BEDROOM
DEN	MEDIA ROOM
DINING ROOM	OFFICE
DRESSING ROOM	OUTSIDE
DRIVEWAY	PATIO
FAMILY ROOM	PLAY ROOM
FLOOR	POOL
FOYER	PORCH
FRONT	RIGHT
GARAGE	SITTING ROOM
GATE	SPA
GUEST BATH	STUDY
GUEST HOUSE	SUNROOM
GUEST ROOM	THEATER
GYM	UPPER
HOT TUB	UTILITY ROOM
INSIDE	YARD

Audio

ANALOG	PHONO
AUDIO	RIGHT BACK SPKR
CD	RIGHT FRONT SPKR
CENT FRONT SPKR	RIGHT OUTD. SPKR
CENTER BACKSPKR	RIGHT SIDE SPKR
DIGITAL	RIGHT SURR. SPKR
LEFT BACK SPKR	SPEAKER
LEFT FRONT SPKR	SUBWOOFER
LEFT OUTD SPKR	SURROUND
LEFT SIDE SPKR	TAPE
LEFT SURR. SPKR	VOLUME CONTROL
OPTICAL	ZONE

Video

CATV	RF
COMPONENT	RCB
COMPOSITE	RS-232
DVD	REMOTE
DVI	S-VIDEO
DVR	SAT
HDMI	TV
HDTV	TOUCH SCREEN
IR	VCR
KEYPAD	VESA
MONITOR	VIDEO
NANNY CAM	VIDEO GAME
PROJECTOR	

Voice/ Data

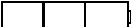
CO	LAN
CABLE MODEM	LAPTOP
DSL	NETWORK
DSLAM	PHONE
DEMARC	PHONE SYSTEM
DESKTOP	USB
FAX	VoIP
INTERNET	WIRELESS

Security

BACK DOOR	HEAT DETECTOR
CCTV	HIGH WATER
CAMERA	HORN
CARBON MONOXIDE	LOW TEMP
CELL	MOTION SENSOR
CONTACT	PIR
CONTROLLER	PHONE
DOOR	POOL
DOOR CONTACT	POWER
DRIVEWAY	REMOTE
DUAL TECH	SENSOR
DUCT	SHOCK SENSOR
FAN CUTOFF	SIREN
FRONT DOOR	SLIDERS
GARAGE DOOR	SMOKE DETECTOR
GAS	SPARE
GATE	STROBE
GLASS BREAK	WATER DETECTOR
GROUND	

Troubleshooting

Review the following possible solutions if you encounter a problem while using your printer.

Problem/Error Message	Solution
Battery Low Battery Empty 	• Attach the power adapter. • Recharge the battery pack. See Recharging the Battery Pack. • Insert new AA alkaline batteries as a temporary power source. AA batteries are less stable and should be used as a temporary solution only.
Poor Print Quality	• Clean the print head. See Cleaning Your Printer. • Adjust the Print Contrast. See Adjusting Print Contrast.
Tape Jam Motor is stalled due to tape jam.	• Open the tape cassette compartment and press the eject button to release the cassette. • Remove the tape, clearing the jam. • Make sure the tape passes smoothly through the guideposts on the tape cassette. See Inserting and Removing the Tape Cassette. • When the jam is cleared, press OK to clear the display.
Uneven or slanted printing The cassette is not inserted correctly.	• Check the tape cassette compartment to make sure the cassette is inserted properly. See Inserting and Removing the Tape Cassette. • Make sure the two levers in the tape compartment are locked on either side of the cassette holding the cassette in place.
Cannot close the tape cassette lid The cassette is not inserted correctly.	Make sure nothing is blocking the cassette cover and that the tape cassette is inserted properly. See Inserting and Removing the Tape Cassette .
Unable to return to the previous menu	• Press Esc to return to the previous menu. • Press Clr to return to return to the display and clear all settings.
Nothing shows on the display	• Ensure the printer is turned on. • Recharge battery pack or plug in power adapter. • Remove power adapter and batteries and then reattach power to restart the printer.
End of Tape Tape cassette is empty.	The printer cannot detect the end of the tape cassette. Make sure you have tape left in the cassette before starting a large print job.

Problem/Error Message	Solution
Display text is too light to read	• Turn on backlight. See Using the Backlight. • Adjust the display contrast. See Adjusting the Display Contrast.
Too many lines Too many lines for this tape width.	• Reduce the number of text lines. • Insert a wider tape cassette.
Barcode not allowed Barcodes can only be printed on 19 mm and 24 mm tape.	• Replace the tape cassette. • Change the tape width.
Printing Self-Lam label not allowed Self-Lam labels can only be printed on 24 mm Self-Laminated tape.	• Replace the tape cassette. • Change the tape width.
Print error... The tape is jammed.	• Open the tape cassette lid and check that the tape is not jammed. • Pull a small amount of tape from the cassette to make sure the tape moves freely.
No response when pressing keys One of the keys may be jammed.	• Press each key to determine which key is jammed. • Press the jammed key firmly until it returns to its normal position.

If you still need assistance, contact DYMO Customer Support for your country. A list of contact numbers for each country is listed inside the back cover of this User Guide.

Safety Precautions for Lithium-Ion Rechargeable Battery Pack

Inaccurate handling of Lithium-ion rechargeable battery may cause leakage, heat, smoke, an explosion, or fire. This could cause deterioration of performance or failure. This may also damage the protection device installed in the battery pack. This could damage equipment or injure users. Thoroughly follow the instructions below.

While Charging

Danger

- When charging the battery, use dedicated chargers and follow the specified conditions.
- Do not connect directly to an electric outlet or cigarette lighter charger.
- Do not use or store battery close to fire or inside the car where temperature may be over 60°C.

Warning

- Stop charging the battery if charging is not completed within the specified time.

Caution

- Thoroughly read this user guide before charging the battery.
- Do not charge in a place that generates static electricity.
- Battery can only be charged within 0°C~45°C temperature range.

When Discharging the Battery

Danger

- Use the battery only in the specified equipment.
- Do not use or store battery close to fire or inside the car where temperature may be over 60°C.

Caution

- Do not charge in a place that generates static electricity.
- Battery can only be used within -20°C~60°C temperature range.

Documentation Feedback

We are constantly working to produce the highest quality documentation for our products. We welcome your feedback.

Send us your comments or suggestions about our user guides. Please include the following information with your feedback:

- Product name, version number, and page number
- Brief description of content (instructions that are inaccurate or unclear, areas where more detail is needed, and so on)

We also welcome your suggestions about additional topics you would like to see covered in the documentation.

Send email messages to: **documentation@dymo.com**

Please keep in mind that this email address is only for documentation feedback. If you have a technical question, please contact Customer Support.

Contacting Customer Support

The following table provides a list of telephone numbers to reach DYMO Sales and Support departments. You can also reach DYMO at www.dymo.com.

Country	Telephone Support	Fax Support
Australia	1800/ 633 868	1800/ 817 558
Austria	01/ 599 14 20 12	02/627-400-160
Belgium	02/ 713 38 08	+31/ 20/ 581 93 80
Canada	(800) 263-6105	
Czech Republic	02/619 12 720	+02/619 12 730
Denmark	35 25 65 08	+31/ 20/ 581 93 80
Finland	09 229 07 04	+31/ 20/ 581 93 80
France	01/69 32 49 32	+31/ 20/ 581 93 80
Germany	069/ 66 56 85 29	+31/ 20/ 581 93 80
Hong Kong	+852 2527 1928	
Hungary	1 424 6600	1 424 6601
Ireland	(+35)3 14118934	
Italy	02/ 45 28 13 08	+31/ 20/ 581 93 80
Mexico	+01 5368 2066	
The Netherlands	020/581 93 86	020/ 581 93 80
New Zealand	0800 803 966	0800 737 212
Norway	22 97 17 10	+31/ 20/ 581 93 80
Poland	00800/311 12 50	+31/ 20/ 581 93 80
Slovakia	(+420) 2/619 12 720	(+420) 2/619 12 730
Spain/Portugal	91/662 31 49	+31/ 20/ 581 93 80
Sweden	08/ 632 00 57	+31/ 20/ 581 93 80
Switzerland	01/342 04 66	+31/ 20/ 581 93 80
Turkey	212/ 286 26 30 PBX	212/ 286 26 28
United Kingdom	(+44) 020/ 7341 55 29	+31/ 20/ 581 93 80
United States	(203) 588-2500	

This product is CE marked in accordance with the EMC directive and the low voltage directive and is designed to conform with the following international standards:

US FCC Class B Compatibility

Safety - EN 60950, IEC 950, UL 1950

EMC Compatibility EN 61000 3-2/3; EN 61000 4-2/3/4/5/6/8/11; ENV 50204;

EU Immunity – EN 55024 & addendums A1, A2 Electromagnetic Compatibility (EMC) - Information Technology equipment, Immunity Characteristics

Emissions – EN 61000-6-3: Electromagnetic Compatibility (EMC) - Part 6: Generic Standards - Section 3: Emission standard for residential, commercial and light industrial environments.

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